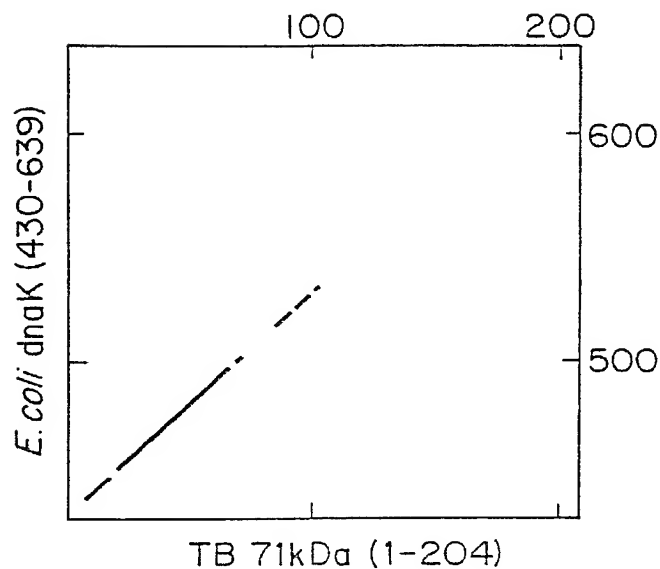
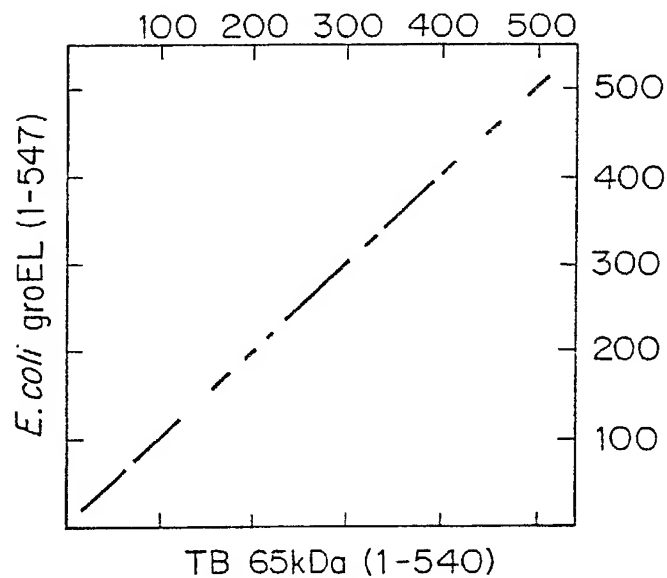




App No.: 10/046,649 10046649 . 102802  
Title: Stress Proteins and Uses Therefor  
Inventors: Richard A. Young, *et al.*



*Fig. 1A*



*Fig. 1B*



App No.: 10/046,649 10046649 10046649  
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1	10	20	30	40	50	60	70
HUMP1	MLRLPTVFRQMRPVSRLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRVILIEQSWGS						
GROEL	-----MA-----AKDVKFGNDARVKMLRGVNVVLADAVKVTGLGPKGRNVVLDKSFGA						
71	80	90	100	110	120	130	140
HUMP1	PKVTKDGVTVAKSIDLKDKYKNIGAKLVQDVANNTNEEAGDGTATATVLARSIAKEGFEKISKGANPVEI						
GROEL	PTITKDGVSVAREIEPEDKFENMGAMQNVKEVASKANDAAGDGTATATVLAQAIIITEGLKAVAAGMNPMDL						
141	150	160	170	180	190	200	210
HUMP1	RRGVMLAVDAVIAELKKQSKPVTTPPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDE						
GROEL	RGIDKAVTAAVEELKALSVPCSDSKAIAQVGTISANSDETVGKLIAEAMDVKVKEGVITVEDGTGLQDE						
211	220	230	240	250	260	270	280
HUMP1	LEIIEGMKFDRCYISPYFINTSKGQKCFQDAYVLLSEKKISSIQSIVPALEIANAHRRKPLVILAEVDVG						
GROEL	LDVVEGMQFDRGYLSPYFINKPETGAVELES PFILLADKKISNIRENMLPVEAVAKAGKPLLIIEAEDVEG						
281	290	300	310	320	330	340	350
HUMP1	EALSTLVNRLKVLQVVAVKAPGFGDNRKNQLKDMAIATGGAVFGEGLTLNLEDVQPHDLGKVGEVIV						
GROEL	EALATAVVNTIRGIVKVAAVKAPGFGDRRKAMLQDIATLTGCTVISEE-IGMELEKATLEDLGQAARVVI						
351	360	370	380	390	400	410	420
HUMP1	TKDDAMLLKKGDKAQIEKRIQEIIEQLDVTTSEYEKEKLNERLAKLSDGVAVLKVGGTSDVEVNEKKDR						
GROEL	NKDTTTIIDGVGEEAAIQGRVAQIRQQIEEATSDYDREKLQERVAKLAGGVAVIKVGAATEVENKEKKAR						

Figure 2A



App No.: 10/046,649  
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421	430	440	450	460	470	480	490
HUMP1	VTDALNATRAAVEEGIVLGGGCALLRCIPALDSLTPANEDQKIGIEIIKRTLKIPANTIAKNAGVEGSLI						
GROEL	VEDALHATRAAVEEGVAGGGVALIRVASKLADLRGQNEQNVSSSL-RAMEAPLRQIVLNCGEEPSVV						
491	500	510	520	530	540	550	560
HUMP1	VEKIMQSSSEVGVDANAGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMGA						
GROEL	ANTVKGGDGNYGYNAATEEYGNMIDMGILDPTKVTRTSALQYAASVAGLMITTECMVTDLPKND-AADLGA						
561	570						
HUMP1	MGGMGG--GMGGGMF						
GROEL	AGGMGGMGGMGGMM-						

Total score = 4667, 5 breaks  
 276 identities out of 545 possible matches between residues

25 random runs  
 Alignment score = 65.34 SD Standard deviation = 18.94 Mean = 3429.48

Figure 2B



App No.: 10/046,649  
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Inventors: Richard A. Young, *et al.*

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	1	10	20	30	40	50	60	70
HUMP1	MLRLPTVFERQMRPVSRLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVIIIEQSWGS	:	:	:	:	:	:	:
ML65K	M-----AKTIAYDEEARRGLERGLNSLADAVKVTGLGPKGRNVVLEKKWGA	:	:	:	:	:	:	:
	71	80	90	100	110	120	130	140
HUMP1	PKVTKDGVTVAKSIDLKDKYKNIGAKLVQDVANNTNEEAGDGTATATVLARSIAKEGFEKISKGANPVEI	:	:	:	:	:	:	:
ML65K	PTITNDGVSIKAEIELEDPYEKIGAEELVKEVAKKTDVAGDGTATATVLAQALVKEGLRNVAAGANPLGL	:	:	:	:	:	:	:
	141	150	160	170	180	190	200	210
HUMP1	RRGVMLAVDAVIAELKKQSKPVTTPPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDE	:	:	:	:	:	:	:
ML65K	KRGIEKAVDKVTETLLKDAKEVETKEQIAATAAISA-GDQSIGDLIAEAMDKVGNEGVITVEESNTFFGLQ	:	:	:	:	:	:	:
	211	220	230	240	250	260	270	280
HUMP1	LEIIEGMKFDRGYISPYFINTSKGQKCEFFQDAYVLLSEKKISSISIVPALEIANAHKPLVIAEDVDG	:	:	:	:	:	:	:
ML65K	LELTEGMRFDKGYISGYFVTDARQEAQVLEEPYIILLVSSKVSTVKDPLPLEKVIQAGKSLLIIAEDVEG	:	:	:	:	:	:	:
	281	290	300	310	320	330	340	350
HUMP1	EALSTLVNRLKVLQVAVKAPGFGDNRKNQLKDMAIATGGAVFGEGLTNLEDVQPHDLGKVGIV	:	:	:	:	:	:	:
ML65K	EALSTLVVNKIRGTFKSVAVKAPGFGDRRKAMLQDMAILTGAQVISEE-VGLTLENTDLSLLGKARKVVM	:	:	:	:	:	:	:
	351	360	370	380	390	400	410	420
HUMP1	TKDDAMLLKGGDKAQIEKRIQIEIIIEQLDVTTSEYEKEKLNERLAKLSGDGVAVLKVGTSDEVNEKKDR	:	:	:	:	:	:	:
ML65K	TKDETTIVEGAGDTDAIAGRVAQIRTEIENSDDSDYDREKLQERLAKLAGGVAVIKAGAAATEVELKERKHR	:	:	:	:	:	:	:

Figure 3A



App No.: 10/046,649  
Title: Stress Proteins and Uses Therefor  
Inventors: Richard A. Young, *et al.*

421		430	440	450	460	470	480	490
HUMP1	VTDALNATRAAVEEGIVLGGGCALLRCIPALDSLTPANEDQKIGIEIKRTLKIPAMTIAKNAGVEGSLI							
ML65K	IEDAVRNAAKAAVEEGIVAGGGVTLQAAAPALDKLKLGTDEAT-GANIVKVALEAPLKQIAFNSGMEPGVV							
491		500	510	520	530	540	550	560
HUMP1	VEKIMQSSSEVGYDAMAGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMA							
ML65K	AEKVRNLSVGHGLNAATGEYEDLLKAGVADPVKVTRSAQNAAASIALGLFTT-EAVVADKPEKTAAPASDP							
561		570						
HUMP1	MGGMGGGGMGGGMF							
ML65K	TGGMGG-MD---F							

Total score = 4552, 7 breaks  
255 identities out of 540 possible matches between residues  
25 random runs  
Alignment score = 47.73 SD Standard deviation = 23.86 Mean = 3413.16

Figure 3B





App No.: 10/046,649 10046649 10046649  
 Title: Stress Proteins and Uses Therefor  
 Inventors: Richard A. Young, *et al.*

421		430	440	450	460	470	480	490
HUMP1	VTDALNATRAAVEEGIVLGGGALLRCIPALDSLTPANEDQKIGIEIKRTLKIPAMTIKNAGVEGSLI							
TB65K	IEDAVRNAKAAVEEGIVAGGGVTLQAAPTLDLQK-LEGDEATGANIVKVALEAPLKQIAFNSGLEPGVV							
491	500	510	520	530	540	550	560	
HUMP1	VEKIMQSSSEVGYDAMAGDFVNNMVEKGIIDPTKVVRTALLDAAAGVASLLTTAEVVVVTEIPKEEKDPGMGA							
TB65K	AEKVRNLPAGHGLNAQTGVYEDLLAAGVADPVKVTRTSALQNAASIAGLFLTTEAVVADKPEKEKASVPG-							
561	570							
HUMP1	MGGMGGGGMGGMF							
TB65K	-----GGDMGGMDF							

Total score = 4560, 5 breaks  
 257 identities out of 540 possible matches between residues

25 random runs  
 Alignment score = 49.36 SD Standard deviation = 23.23 Mean = 3413.16

Figure 4B



App No.: 10/046,649 10046649.102802  
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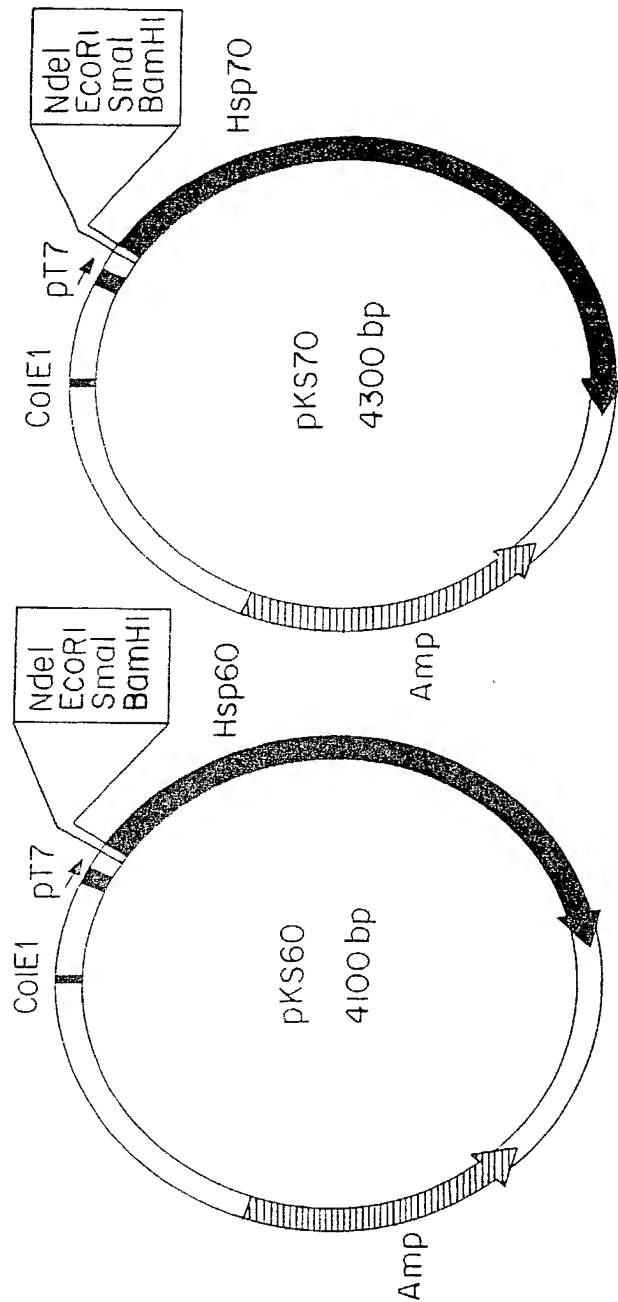


FIG. 5





App No.: 10/046,649

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Inventors: Richard A. Young, *et al.*

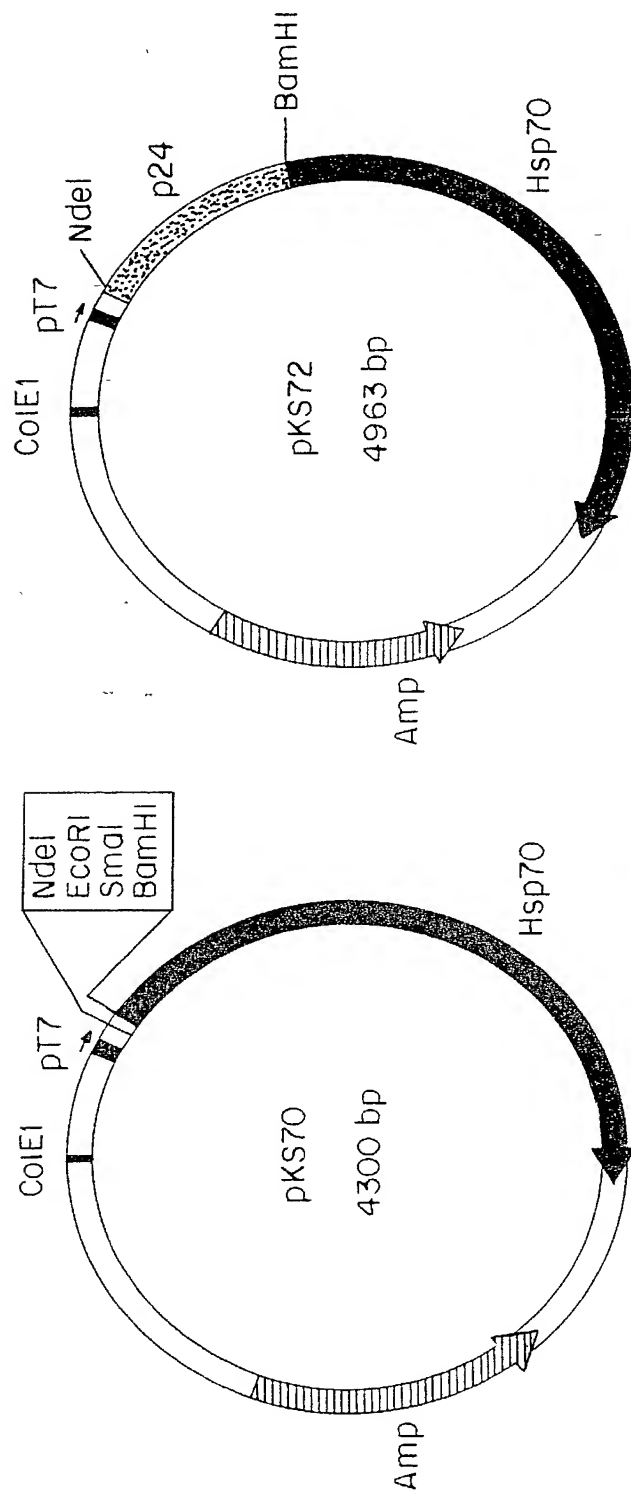


FIG. 6



App No.: 10/046,649

Title: Stress Proteins and Uses Therefor

Inventors: Richard A. Young, *et al.*

10046649 - 102802

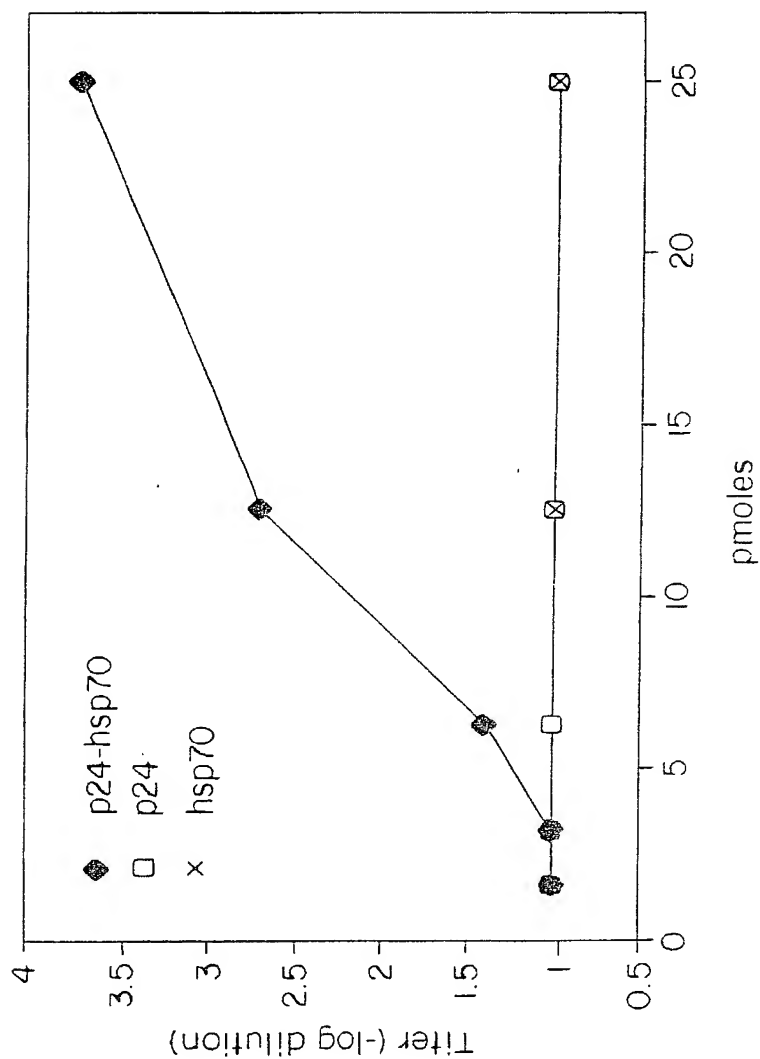


FIG. 7